Stair Solutions - Pultruded Stair Treads

Safe-T-Span® Pultruded Industrial/Pedestrian Stair Treads

Slip-resistant and non-conductive, Safe-T-Span pultruded stair treads offer the same level of safety, strength and corrosion resistance as other Fibergrate pultruded fibreglass products. Designed for use in industrial applications where wider support spans are required, Safe-T-Span pultruded stair treads are available in 25mm and 38mm depths in an I-bar configuration with 40% and 60% open-areas for most applications. A 51mm depth T-bar configuration, with either a 33% or 50% open-area, is also available for applications requiring wider spans or lower deflections.

Safe-T-Span pultruded pedestrian stair treads are available in 25mm and 38mm depths in a T-bar configuration, with 12%, 25% and 38% open-areas. The application shown here utilizes Safe-T-Span pultruded industrial stair treads. These are used in conjunction with Dynarail® handrail and Dynaform® structure to construct a stairway leading from the ocean, up the rocky side of a cliff, to a research centre located on Farallon Island, off the San Francisco coast.

Industrial Stair Tread Load/Deflection Information

TREAD TYPE	Load (kN)	SPAN (mm)	500	600	(800)	1000	1200
		SPAN/150	3.3	4.0	5.3	6.7	8.0
25mm Deep, I6010	1		0.5	1.8	4.3	6.9	9.5
	2		1.0	3.5	8.7	--	--
38mm Deep, I6015	1		< 0.3	0.5	1.2	1.9	2.6
	2		< 0.3	0.9	2.4	3.8	5.2
51mm Deep, T5020	1		< 0.3	0.4	0.9	1.3	1.8
	2		0.4	0.8	1.8	2.7	3.6
25mm Deep, I4010	1		< 0.3	1.2	3.1	4.9	6.8
	2		0.7	2.6	6.2	9.9	--
38mm Deep, I4015	1		< 0.3	0.3	0.8	1.3	1.8
	2		< 0.3	0.7	1.6	2.5	3.4
51mm Deep, T3320	1		< 0.3	< 0.3	0.7	1.0	1.4
	2		< 0.3	0.6	1.3	2.0	2.7

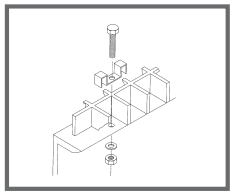
NOTES:
1. It is suggested that stair tread deflection be limited to SPAN/150. Deflections based on this ratio are provided at the top of the table.
2. Deflection in the body of the table are for concentrated loads of both 1 kN and 2 kN. A concentrated load is applied at the centre of the tread, over a width of 102mm and a length of 152mm, starting at the nosing edge to simulate the landing of a foot.
3. Deflections are not appreciably different due to stair tread depth. Actual depth will vary depending on stair tread configuration.

Pedestrian Stair Tread Load/Deflection Information

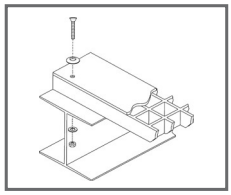
TREAD TYPE	Load (kN)	SPAN (mm)	500	600	(800)	1000	1200
		SPAN/150	3.3	4.0	5.3	6.7	8.0
25mm Deep, T1210	1		1.5	2.8	5.4	8.0	10.5
	2		3.1	4.9	8.7	12.4	--
38mm Deep, T1215	1		1.1	1.5	2.3	3.1	3.9
	2		1.8	2.6	4.3	5.9	7.6
25mm Deep, T2510	1		1.3	2.7	5.5	8.3	11.1
	2		3.0	5.1	9.3	--	--
38mm Deep, T2515	1		0.9	1.4	2.3	3.2	4.1
	2		1.5	2.4	4.1	5.9	7.7
25mm Deep, T3810	1		1.8	3.3	6.4	9.5	12.6
	2		3.1	5.6	10.5	--	--
38mm Deep, T3815	1		1.5	2.8	5.4	8.0	10.5
	2		3.1	4.9	8.7	12.4	--

NOTES:
1. It is suggested that stair tread deflection be limited to SPAN/150. Deflections based on this ratio are provided at the top of the table.
2. Deflection in the body of the table are for concentrated loads of both 1 kN and 2 kN. A concentrated load is applied at the centre of the tread, over a width of 102mm and a length of 152mm, starting at the nosing edge to simulate the landing of a foot.
3. Deflections are not appreciably different due to stair tread depth. Actual depth will vary depending on stair tread configuration.

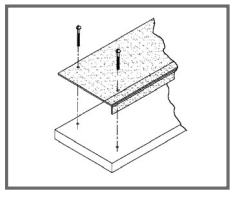
Clip Assemblies for Stair Solutions Products



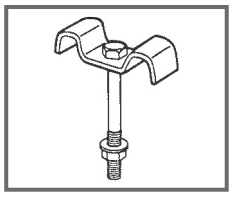
TYPE M HOLD DOWN CLIPS: Secure open mesh treads to a support using two adjacent grating bars for a secure fit. Similar in design to metal grating saddle clips.



TYPE WLP STRUCTURAL CLIPS: Secure covered treads to a structure or stair tread covers to an existing stair tread.



TYPE H (TRUSS HEAD) STRUCTURAL CLIPS: Secure stair tread covers to an existing stair tread.



TYPE M HOLD DOWN CLIP ASSEMBLIES FOR PULTRUDED STAIR TREADS: MI40 for I4010 and I4015 treads, MI60 for I6010 and I6015 treads, MT5020 for T5020 treads, MT3320 for T3320 treads.

Stair Tread Installation Note

All load carrying bars of both moulded and pultruded stair treads (especially the nosing bar of the tread) must be fully supported at its ends to be considered properly installed.

To maintain corrosion resistance and structural integrity, all cut ends must be sealed with Fibergrate's sealing/coating spray and bonding kit.